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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,959	11/13/2003	Masahiro Yokotani	Q77759	6714

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EXAMINER

AURORA, REENA

ART UNIT PAPER NUMBER

2862

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/705,959	Applicant(s) YOKOTANI ET AL.	
	Examiner Reena Aurora	Art Unit 2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 2 and 9 is/are rejected.
- 7) ☒ Claim(s) 3 - 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/7/04, 2/3/05, 3/1/05</u> <i>lt</i> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 9 are presented for examination.

Drawings

2. Figures 13(a), 13(b), fig. 14 and fig. 15 as disclosed by applicant on page 1, lines 9 - 13 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: Page 3, lines 1 – 3, page 14, lines 1 – 3, the phrase "the processing circuit having convex portions formed on its periphery" appears incorrect. The drawings show that the convex surface is on the moving member in the form of teeth (fig. 1(a)) and page 6, lines 1 – 3).

Appropriate correction is required.

Claim Objections

4. Claim 1 is objected to because of the following informalities: it is unclear how the processing circuit having convex portions formed on its periphery, should have stated that the magnetic moving member, not the processing circuit has convex portions formed on its periphery in the form of teeth, as shown in figures and the specification on page 6, lines 1 - 3.
5. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1 – 2 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Shinjo et al. (6,630,821).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

8. As to claim 1, Shinjo et al. (hereinafter referred to as Shinjo) discloses a magnetic detection device comprising a processing circuit (1, 71 - 74, fig. 7(c)) being arranged apart from a magnetic moving member (4, fig. 7(b)) having convex portions (4) formed on its periphery in the form of teeth on a plane thereof, the processing circuit (1, 71 - 74, fig. 7(c)) including a bridge circuit (71 - 74, fig. 8) comprising a first magnetoelectric conversion element (71) and a second magnetoelectric conversion element (72); and a magnet (1) for applying a magnetic field to the first magnetoelectric conversion element (71) and the second magnetoelectric conversion element (72) and also applying a magnetic field to the magnetic moving member (4) in a direction of an axis of rotation of the magnetic moving member (Note fig. 7(c)); wherein the second magnetoelectric conversion element (72) is arranged substantially on a center line passing through the center of the magnet on a line (fig. 7(b), 7 (c)) in opposition to the magnetic moving member (4) when viewed along the direction of the axis of rotation of the magnetic moving member, so that a differential output (29, fig. 8) can be obtained from the outputs of the first magnetoelectric conversion element (71) and the second magnetoelectric conversion element (72).

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9. As to claim 2, Shinjo discloses the magnetic moving member including a disk-shaped member having teeth (4) formed on its periphery and being movable in a circumferential direction thereof (fig. 7 (b)).

10. As to claim 9, Shinjo discloses that the each of the first and second magnetoelectric conversion elements comprises a GMR (col. 14, lines 58 - 63). Shinjo clearly shows the GMR element can be used instead of a MR element to boost the output of the bridge circuit.

Allowable Subject Matter

11. Claims 3 – 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. As to claims 3 – 8, the prior art fails to show a magnetic detection apparatus including a magnetic guide arranged between the processing circuit and the magnet and having a pair of projected members in an opposed and spaced relation with respect to each other in the circumferential direction of the magnetic moving member. These limitations along with the other limitations of the claims render the claims allowable over prior art.

Prior Art of Record

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
14. Yokotani et al. (6,107,793) is cited for its disclosure of a magnetic sensing device unaffected by positioning errors of magnetic field sensing elements.
15. Yokotani et al. (6,194,893) is cited for its disclosure of a magnetic detector for detecting movement of a magnetic member.
16. Nakane et al. (6,046,584) is cited for its disclosure of an internal combustion engine rotating position detector using a differential signal from magnetic sensing portions.
17. Shinjo et al. (6,528,992) is cited for its disclosure of a magnetic detector having magnetic field sensing device centrally aligned with magnetic field generator.

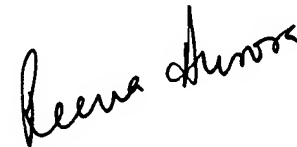
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reena Aurora whose telephone number is 571-272-2263. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, E. Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Reena Aurora
Examiner

A handwritten signature in black ink, appearing to read "Reena Aurora", is located to the right of the typed name.